Establishing global health cancer care partnerships across common ground: bridging nuclear security, equitable access, education, outreach, and mentorship

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Abstract

Background The projection that by 2025, about 75% of cancer cases will be in the developing world is recognised by the WHO and the International Atomic Energy Agency. Radiation treatment machines (Cobalt-60 and linear accelerators) are critical for curative and palliative care. With an estimated global shortage of 5000 treatment machines, even commissioning one per week would require a century to solve the current shortfall. Despite, or possibly because of, these alarming statistics, there has been little concerted effort to solve the cancer care problem which is believed by some to be too expensive and overwhelming.

Methods The radiation oncology professional community recognises the need for international education. A key impetus for addressing the capacity shortage is led by trainees and workers at the start of their careers, including in-country rotations. Given the enormity of the need, the not-for-profit International Cancer Expert Corps was established in 2013 to address the need for a sustainable, capable workforce using an innovative multisector, mentorship model that included the creation of a career path in altruistic service. The Global Task Force for Radiation for Cancer Control of the Union for International Cancer Control demonstrated a potential path forward for building radiation therapy capacity that has a positive outcome both economically and medically. The challenge is to engage potential stakeholders to establish cancer control programmes, including treatment.

Findings Bringing together ongoing efforts is critical and best done with formal collaborations between existing programmes, allowing for individual recognition and a range of approaches while keeping competition that can dissuade investment to a minimum. Partnerships are developing among: early stage career cancer experts committed to global health; experts in the private practice sector; organisations interested in supplying refurbished equipment; oncologists addressing health disparities among indigenous populations in resource-rich countries; retirees seeking opportunities to use their skills to help the underserved; linear accelerator manufacturers; and government agencies and foundations working to eliminate dangerous nuclear material, especially in unstable countries.

Interpretation Stakeholders from sectors not historically engaged in health care are forming unique partnerships with common goals and a willingness to address the challenge of global cancer care.

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